IN THE SPECIFICATION:

Please replace paragraph [0019] with the following paragraph:

[0019] A second piping system 80 may include a fan 82 that receives air from an ambient space 84 and directs the air through a valve or damper 86 to a component, such as a furnace 88. Damper 86 may include position sensors 90 and 92 to detect an open and closed position of damper 86. Furnace 88 may include a damper 94 that may be operated by actuator 96, which may be, for example, a motor actuator, a fluid powered piston actuator, or other actuator, which may be controlled remotely by DCS 20 through a signal transmitted through a conduit (not shown). A second fan 98 may take a suction on furnace 88 to remove combustion gases from furnace 88 and direct the combustion gases to a smoke stack or chimney (not shown) for discharge to ambient space 84. Fan 98 may be driven by a motor 100 through a shaft 102 coupled between fan 98 and motor 100. A rotational speed of motor 100 may be controlled by a VSD 104 that may be communicatively coupled to DCS 20 though network backbone 22. Fan 82 may be driven by an engine 106, such as an internal combustion engine, or a steam, water, wind, or gas turbine, or other driver, through a coupling 108, which may be hydraulic or other power conversion device. Each of the components may include various sensors and control mechanisms that may be communicatively coupled to DCS 20 through network backbone 22 or may communicate with DCS 20 through a wireless transmitter/receiver [[108]] <u>109</u> to wireless base station 26.

Please replace paragraph [0029] with the following paragraph:

[0029] A portable vibration monitor 244 may be intermittently coupled to LAN directly or through a computer input port such as ports included in workstations 222 or client systems 204. Typically, vibration data is collected in a route, collecting data from a predetermined list of machines on a periodic basis, for example, monthly or other periodicity. Vibration data may also be collected in conjunction with troubleshooting, maintenance, and commissioning activities. Such data may provide a new baseline for algorithms of CIMMS 114. Process data may similarly, be collected on a route basis or during troubleshooting, maintenance, and commissioning activities. Certain process parameters may not be

permanently instrumented and a portable process data collector [[244]] 245 may be used to collect process parameter data that can be downloaded to plant control system 200 so that it is accessible to CIMMS 114. Other process parameter data, such as process fluid chemistry analyzers and pollution emission analyzers may be provided to plant control system 200 through a plurality of on-line monitors 246.

Please replace paragraph [0030] with the following paragraph:

[0030] Electrical power supplied to various machines or generated by generators within industrial plant 10 may be monitored by a relay [[246]] 248, for example, but, not limited to a protection relay, associated with each machine. Typically, such relays [[246]] 248 are located remotely from the monitored equipment in a motor control center (MCC) or in switchgear 250 supplying the machine. In addition, to relay [[246]] 248, switchgear 250 may also include a supervisory control and data acquisition system (SCADA) that provides CIMMS 114 with a condition of power supply or power delivery system (not shown) equipment located at the industrial plant 10, for example, in a switchyard, or remote transmission line breakers and line parameters.

Please replace paragraph [0031] with the following paragraph:

[0031] Figure 3 is a perspective view of an exemplary motor/pump combination 300 that may be one of a plurality driver/driven machine combinations analyzed by CIMMS 114. It should be understood that CIMMS 114 may be used to monitor and analyze rotating equipment including pumps, turbines, fans, blowers, compressors, non-rotating equipment, such as, transformers and catalytic reactors, or other types of equipment. A pump and motor combination is illustrated for purposes of example only. Pump and motor combination 300 includes motor 302 and a pump 304. Motor 302 may be an electric motor, diesel engine or turbine, or other power source. Motor 302 is operatively connected to pump 304 via coupling [[16]] 306. Pump 304 includes an inlet 308 and an outlet 310. A control valve 311 may be located downstream from outlet 310 of pump 304. Control valve 311 may

be responsive to commands received from DCS 20 for operating pump and motor combination 300 within selected operating design parameters. Control valve 311 is also used to control flow through pump 304 to satisfy piping and process system requirements. Closing control valve 311, by providing a signal to a valve operator 313, increases fluid resistance to flow and causes pump 304 to operate at a higher pressure and a lower flow rate. Similarly, opening control valve 311 results in reduced fluid resistance, increased flow rate and a relatively lower pressure.

Please replace paragraph [0034] with the following paragraph:

[0034] Additional sensors that may be used include, but are not limited to, vibration sensors, which may be embodied in an accelerometer 324, other vibration sensors may be proximity sensors, such as a pump outboard proximity sensor 326, a pump inboard proximity sensor 328, a transducer a once-per-revolution event, such as a Keyphasor® 330, and a thrust sensor 332. Motor 302 may include a winding temperature sensor 334 for determining an overheating and or overload condition in motor 302, a bearing temperature sensor 336 to confirm an operating condition of a motor bearing 338. A current and voltage of the electrical energy supplied to motor 302 may be monitored locally or remotely at the MCC supplying motor 302, or may be monitored by relay [[246]] <u>248</u>.

Please replace paragraph [0039] with the following paragraph:

[0039] Data analyzer layer 410 may be embodied in software executing in DCS 20, or a separate analyzer communicatively coupled to data [[bas]] <u>bus</u> 406. Data analyzer layer 410 may also be embodied in one or more hardware analyzers such as, circuit cards, application specific integrated circuits (ASIC), and/or analog or digital logic circuits.

Please replace paragraph [0046] with the following paragraph:

[0046] DCS 20 is provided with predetermined logic for receiving measured parameters from equipment located in industrial plant 10 or locally remotely but, associated with industrial plant 10, and developing control outputs to modify industrial plant equipment. A continuous integrated machinery monitoring system CIMMS 114 may communicate bi-directionally with DCS 20 over one or more network segments 520 or may be integral to DCS 20 and execute on processor 24. CIMMS 114 includes a database of rule sets that are configured to monitor industrial plant equipment using measured parameters and derived quantities based on measured parameters and offline data 518. The rule sets include rules that direct analysis of rule set inputs and place a result of the analysis on outputs of the rule set. Rule sets may include rules specific to a plant asset, such as a motor/pump combination, or may include rules specific to an industrial plant system, such as a cooling water system. Rule sets may be applied to more than one plant asset and operate to relate the output of the rule set to input parameters using one or more algorithms, signal processing techniques, and/or waveform analysis parameters. When applied to a specific plant asset, such as combination 300, the rules in ~~rule set 280~~ the rule set use measured parameters and derived quantities for plant equipment and driver/driven combinations that may be fluidly communicating with combination 300 but are located remotely. As such, the derived quantities associated with other plant equipment may be used to verify measured parameters associated with combination 300 and provide information about parameters associated with combination 300 that cannot be measured directly due to, for example an absence of a sensor capable of measuring the parameter or a sensor malfunction.